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10/707,903	01/22/2004	Frank A. Jas	JAS-001	1902

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EXAMINER
SYED, FARHAN M

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/707,903	JAS, FRANK A.
Office Action Summary	Examiner	Art Unit
	Farhan M. Syed	2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

    4a) Of the above claim(s) *1 and 2* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-12 are pending.

Election/Restrictions

2.   Claims 1 and 2 are withdrawn from further consideration pursuant to 37 CFR

1.142(b), as being drawn to a nonelected invention, there being no allowable generic or

linking claim. Applicant timely traversed the restriction (election) requirement in the reply

filed on 30 July 2006, but did not provide any arguements. Thus the restriction

requirement is being treated as an election w/o troverse.

Drawings

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference character(s) not mentioned in the

description: Figure 5B, items 511 and 512. Corrected drawing sheets in compliance

with 37 CFR 1.121(d), or amendment to the specification to add the reference

character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply

to the Office action to avoid abandonment of the application. Any amended replacement

drawing sheet should include all of the figures appearing on the immediate prior version

of the sheet, even if only one figure is being amended. Each drawing sheet submitted

after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "908" and "909" have both been used to designate component packet. Please see paragraph 144 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5.   Claim 4 is objected to because of the following informalities: On line 6 of claim 4, after the word 'comprises', there should be a ':' and on line 7 of instant claim, after the word 'field' there should be a ';'. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.   Claims 3, 5, 8, and 10 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

8.   Claim 3 recites the limitation "the data packets" in line 10. There is insufficient

antecedent basis for this limitation in the claim.

9.   Claim 5 recites the limitation "the component data" in lines 3 and 4. There is

insufficient antecedent basis for this limitation in the claim.

10.   Claim 8 recites the limitation "the data packets" in line 10. There is insufficient

antecedent basis for this limitation in the claim.

11.   Claim 10 recites the limitation "the component data" in line 4. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

12.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13.   Claims 3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by

Gioielli et al (U.S. Patent No. 5,485,610 and known hereinafter as Gioielli).

        As per claims 3 and 8, Gioielli teaches a computer-based software method for

creating and modifying a database, comprising the steps of (i.e. *"In general, the invention*

features a physical database designer which is embodied in computer software that generates a physical

database design." "The invention automates the design of the physical structure of a database and allows

users to improve the performance of the database and any applications that rely on it.")(Column 1, lines

65-67; column 2, lines 38-40): (a) creating a multiplicity of component packets, each of which

further comprises: (i) a plurality of component data records (i.e. *"Each table can be thought of*

as the definition of a record data structure." The preceding text clearly indicates that each table is an

instance of plurality of component data records.)(Column 4, lines 34-35); (ii) a plurality of

component description records arranged in an array (i.e. *"Each table also has a number of*

column elements which can be thought of as fields in the record." The preceding text clearly indicates that

the component description records are columns in the table.)(Column 4, lines 36-37); and (iii) a

header record, which further comprises a total size field and a number of components

field (i.e. *"Each column element has associated with it a data type, e.g., character, integer, or date. The*

data entities which later fill the "rows" under the column elements can be related by their data type, but

can also form relationships to one another by their appearance in multiple tables." The preceding text

clearly indicates that a header record is an instance of column, that contains the total size field, which is

illustrated in Table 1 and a number of component fields, which are instances of data type.)(Column 4,

lines 39-41; Table 1); (b) transferring one or more of the data packets from an applications

program to the database (i.e. *"The designer follows a process which includes the steps of (a)*

entering a logical schema representing the database to be designed; (b) entering a hierarchical definition

of the workload experienced by the database, which includes, for each level of a hierarchy of operations,

a separate specification of workload; and (c) applying expert rules to the logical schema and the workload

definition to generate the physical database design.")(Column 2, lines 1-7); and (c) transferring one

or more of the data packets from the database to the applications program (i.e. *"Access to*

data entities in a table is defined by several conditions. First, an access mode statement defines the type

of operation that a particular column element is the object of, e.g., a READ, WRITE, or UPDATE

operation." The preceding text clearly indicates that when a user accesses the database through a read,

write, or update, an ordinary person skilled in the art understands that the database will send data

packets back to the application program.)(Column 7, lines 29-33).

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

15.   Claims 4, 5, 9, and 10 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Gioielli et al (U.S. Patent No. 5,485,610 and known hereinafter as

Gioielli) in view of Gajda et al (U.S. Patent No. 6,502,088 and known hereinafter as

Gajda).

As per claims 4 and 9, Gioielli teaches a method, wherein each component data

record further comprises a multiplicity of arbitrary data (i.e. *"Over time, however, the number of*

employees can vary. This variance is accounted for in the average and maximum number of occurrences

of data entities in the EMPLOYEES table. For example, if the company expects to double its number of

employees, the average and maximum numbers of entities in the EMPLOYEES table is increased in the

data volume definition.")(Column 9, lines 64-67; column 10, lines 1-4).

Gioielli does not explicitly teach the method where each component description

record further comprises a component identifier which is unique within the component

packet's component description records, and which further comprises (a) a size field; (b)

a logical block number field; and (c) a component packet offset.

Gajda teaches the method where each component description record further

comprises a component identifier which is unique within the component packet's

component description records, and which further comprises (a) a size field (i.e. Although

Gioielli does teach a size field based on the illustrations in table 1, Gajda too teaches a size field that is

illustrated in Table 2 under the column DJ Type. In specific, the NodeName column clearly shows a

datatype of varchar with a size field of 50.)(Table 2); (b) a logical block number field (i.e. Table 2

further illustrates the Blocksize column.)(Table 2); and (c) a component packet offset (i.e. Table 4

clearly illustrates an offset column.)(Table 4).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Gioielli with the teachings of Gajda to

include method where each component description record further comprises a

component identifier which is unique within the component packet's component

description records, and which further comprises (a) a size field; (b) a logical block

number field; and (c) a component packet offset with the motivation to design databases

that use storage space efficiently and that partition data across the available storage

space to reduce I/O overhead of database operations (Gioielli, column 2, lines 52-55).

As per claims 5 and 10, Gioielli does not explicitly teach a method further

comprising: (a) adding a new component; (b) modifying an existing component by

changing the component data without changing its size; (c) modifying an existing

component by increasing or decreasing its size; and (d) deleting an existing component

packet.

Gajda teaches a method further comprising: (a) adding a new component (i.e.

"INSERT: Issue a SELECT ODBC call on the parent table to ensure that each row conforms to the

referential constraint prior to passing the INSERT to the original relational DBMS ODBC driver. If the

constraint does not pass, then the ODBC driver of the present invention will generate an error message

and return control directly to the application program. From the application's viewpoint, it looks as if the

underlying relational DBMS detected the referential constraint violation and returned the error.")(Column

8, lines 51-60); (b) modifying an existing component by changing the component data

without changing its size (i.e. *"UPDATE: Issue a SELECT ODBC call on the parent table to ensure*

that each row conforms to the referential constraint prior to passing the UPDATE to the original relational

DBMS ODBC driver. If the constraint does not pass, then the ODBC driver of the present invention will

generate an error message and return control directly to the application program.")(Column 8, lines 60-

67); (c) modifying an existing component by increasing or decreasing its size (i.e.

"UPDATE: Issue a SELECT ODBC call on the parent table to ensure that each row conforms to the

referential constraint prior to passing the UPDATE to the original relational DBMS ODBC driver. If the

constraint does not pass, then the ODBC driver of the present invention will generate an error message

and return control directly to the application program.")(Column 8, lines 60-67); and (d) deleting an

existing component packet (i.e. *"DELETE: Use the delete rules specified in the metadata to delete*

restrict, set null, or cascade. The ODBC driver of the present invention may need to make several calls

into the relational DBMS in order to complete the requested action.")(Column 8, lines 45-50).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Gioielli with the teachings of Gajda to

include a method further comprising: (a) adding a new component; (b) modifying an

existing component by changing the component data without changing its size; (c)

modifying an existing component by increasing or decreasing its size; and (d) deleting

an existing component packet with the motivation to design databases that use storage

space efficiently and that partition data across the available storage space to reduce I/O

overhead of database operations (Gioielli, column 2, lines 52-55).

16.   Claims 6, 7, 11, and 12 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Gioielli et al (U.S. Patent No. 5,485,610 and known hereinafter as

Gioielli) in view of Gajda et al (U.S. Patent No. 6,502,088 and known hereinafter as

Gajda) and further in view of Jorgensen (U.S. Patent No. 5,933,831).

As per claims 6 and 11, Gioielli and Gajda do not explicitly teach a method

wherein a component data further comprises an entry point of a keyed structure.

Jorgensen teaches a method wherein a component data further comprises an

entry point of a keyed structure (i.e. *"Table 200 also contains a column 208 in which the name of*

the entities within the table are listed. A "Keys and Constraints" column 208 contains icons for each entity

indicating the relationship of table 202 to other tables within the entity relationship diagram. For example,

primary key icon 212 appears in the column which is the primary key for the table being displayed,

signifying the table's primary key. Foreign column icon 214 contains an icon signifying a foreign key

column of the table. When foreign key icon 214 is clicked, the parent table is displayed with the column of

that table which is the foreign key highlighted. A combination of solid lines 216, dashed lines 218, dot

terminators 220, and diamond terminators 222 associated with foreign key icon 214 indicate the nature of

the relationship between the displayed table and the hyperlinked table in accordance with the

conventional significance associated with such graphical features.")(Column 3, lines 49-65).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Gioielli with the teachings of Gajda and

with the further teaches of Jorgensen to include a method wherein a component data

further comprises an entry point of a keyed structure with the motivation to design

databases that use storage space efficiently and that partition data across the available

storage space to reduce I/O overhead of database operations (Gioielli, column 2, lines 52-

55).

As per claims 7 and 12, Gioielli and Gajda do not explicitly teach a method

wherein each component packet is further associated with a key and a keyed search

structure.

Jorgensen teaches a method wherein each component packet is further

associated with a key and a keyed search structure (i.e. *"By using hyperlinks, each table within*

the entity relationship diagram may be individually displayed on the display of a data processing system.

Icons indicate the relationship between tables of an entity relationship diagram, and also allow the user to

"traverse" or move between tables by clicking on the icons. Large entity relationship diagrams are thus

easier to view and comprehend, no matter how complex the corresponding database may be, since only

a predetermined portion of the diagram is displayed at a given time. Furthermore, while lines on a

traditional, paper-based entity relationship diagram rarely if ever point to the column being referenced,

icons within the hyperlinked entity relationship diagram are linked directly to the appropriate information in

each table.")(Column 3, lines 27-40).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Gioielli with the teachings of Gajda and

with the further teaches of Jorgensen to include a method wherein each component

packet is further associated with a key and a keyed search structure with the motivation

to design databases that use storage space efficiently and that partition data across the

available storage space to reduce I/O overhead of database operations (Gioielli, column 2,

lines 52-55).

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Farhan M. Syed whose telephone number is 571-272-

7191. The examiner can normally be reached on 8:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free).

/JEFFREY GAFFIN/
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

FMS